Clone Graph (View)

Given a reference of a node in a **connected** undirected graph.

Return a **deep copy** (clone) of the graph.

Each node in the graph contains a value (`int`) and a list (`List[Node]`) of its neighbors.

```
class Node {

    public int val;

    public List<Node> neighbors;

}
```

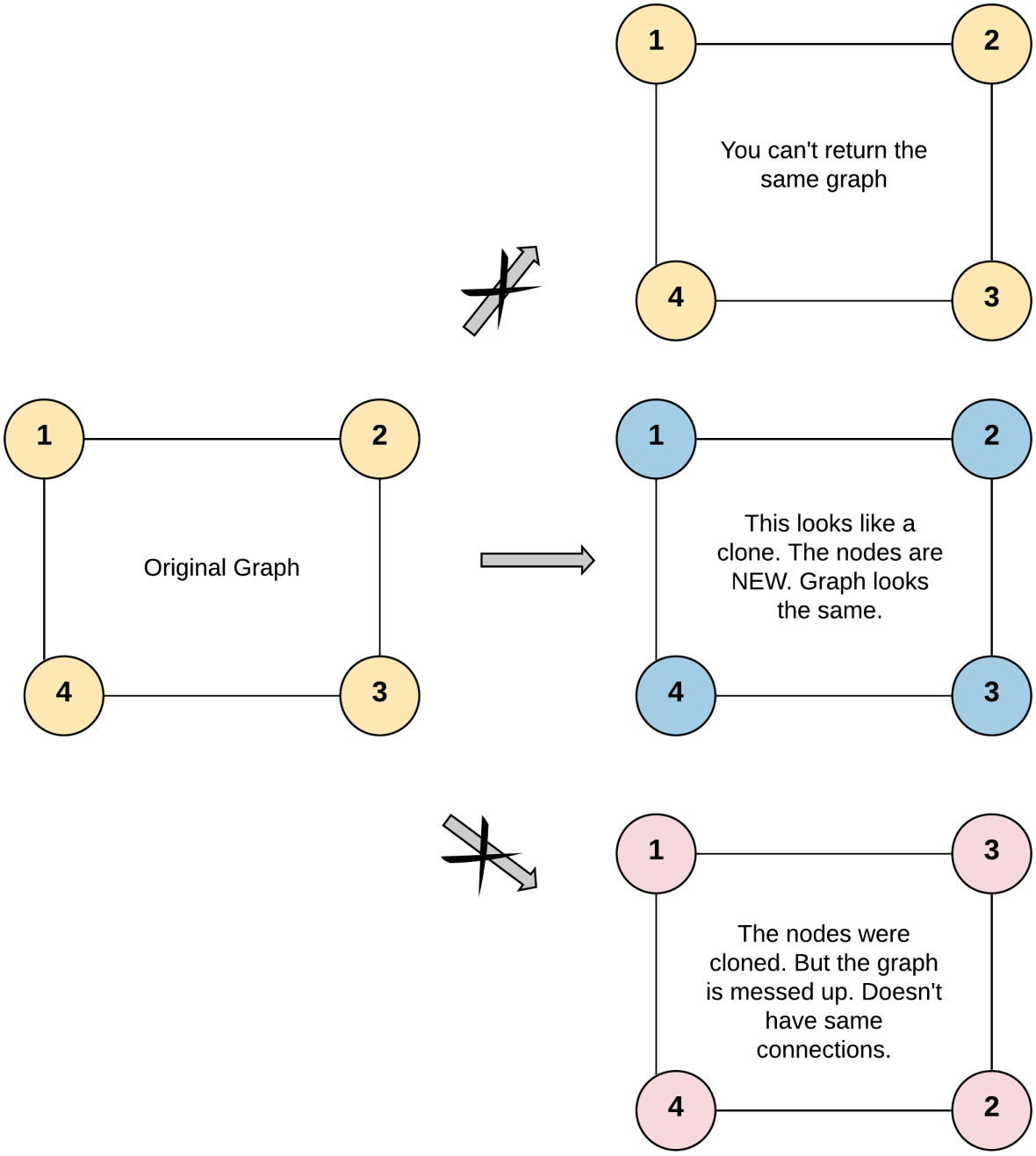
Test case format:

For simplicity, each node's value is the same as the node's index (1-indexed). For example, the first node with `val == 1`, the second node with `val == 2`, and so on. The graph is represented in the test case using an adjacency list.

An adjacency list is a collection of unordered **lists** used to represent a finite graph. Each list describes the set of neighbors of a node in the graph.

The given node will always be the first node with `val = 1`. You must return the **copy of the given node** as a reference to the cloned graph.

Example 1:




```
Input: adjList = [[2,4],[1,3],[2,4],[1,3]]

Output: [[2,4],[1,3],[2,4],[1,3]]

Explanation: There are 4 nodes in the graph.

1st node (val = 1)'s neighbors are 2nd node (val = 2) and 4th node (val = 4).

2nd node (val = 2)'s neighbors are 1st node (val = 1) and 3rd node (val = 3).

3rd node (val = 3)'s neighbors are 2nd node (val = 2) and 4th node (val = 4).

4th node (val = 4)'s neighbors are 1st node (val = 1) and 3rd node (val = 3).
```

Example 2:


```
Input: adjList = [[]]

Output: [[]]

Explanation: Note that the input contains one empty list. The graph consists of
only one node with val = 1 and it does not have any neighbors.
```

Example 3:

```
Input: adjList = []

Output: []

Explanation: This an empty graph, it does not have any nodes.
```

Constraints:

- The number of nodes in the graph is in the range `[0, 100]`.
- `1 <= Node.val <= 100`
- `Node.val` is unique for each node.
- There are no repeated edges and no self-loops in the graph.
- The Graph is connected and all nodes can be visited starting from the given node.